



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

AWOKOLA ET AL.

CASE NO: FA1002 US NA

SERIAL NO: 09/873,714

GROUP ART UNIT: 1762

FILED: JUNE 4, 2001

EXAMINER: E. TSOY

FOR: PROCESS FOR MULTILAYER  
COATING OF SUBSTRATES

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
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Sir:

Pursuant to 37 C.F.R. § 1.192, the following is an Appeal Brief in support of the Appeal filed April 18, 2006, appealing the Final Office Action dated September January 5, 2006. Submitted herewith is the filing fee for this Appeal Brief in accordance with 37 C.F.R. § 41.20(b)(2). Please charge said fee to Deposit Account No. 04-1298 (E.I. du Pont de Nemours and Company).

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## **I. REAL PARTY IN INTEREST**

The real party in interest is E.I. du Pont de Nemours and Company (*hereinafter* "DuPont"), owner of the Application.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Applicants, Applicants' legal representative, or DuPont that will directly affect or be directly affected by or have a bearing on the Board of Patent Appeals and Interferences' (*hereinafter* the "Board") decision in the present Appeal.

## **III. STATUS OF THE CLAIMS**

Claims 1-3, 6, 8, 10, and 13 stand rejected and are the subject of this Appeal. Originally-filed Claims 4-5, 7, 9, and 11-12 have been canceled.

## **IV. STATUS OF AMENDMENTS**

No amendments were made to the claims in response to the Final Office Action.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 1, the only independent claim at issue, relates to a process for the repair coating of vehicle substrates (see page 1, lines 5-8) which comprises: a) applying a filler layer of a filler coating composition to a metal substrate (see page 7, lines 6-15), b) curing the resultant filler layer by irradiation with high energy radiation (see page 7, lines 16-23), and c) applying a top coat layer to the cured filler layer and curing the top coat layer (see page 8, lines 19-24), wherein the filler coating composition comprises A) 15-60 weight-% of at least one free-radically polymerizable binder comprising at least one free-radically polymerizable olefinic double bond, said binder having fewer than three of said olefinic double bonds per molecule (see page 2, lines 25-26; page 2, lines 33-37; page 3, lines 1-8), B) 40-85 weight-% of a free-radically polymerizable reactive diluent comprising at least one (meth)acrylic acid ester having an olefinic double bond (see page 2, lines 27-29; page 2, lines 33-37; page 3, line 30; page 4, line 14), said at least one (meth)acrylic

acid ester being formed by reacting (meth)acrylic acid with at least one cycloaliphatic alcohol (see page 3, lines 35-36; page 4, lines 1-2; page 4, lines 9-11), wherein the weight-% of Components A and B adds up to 100 weight-% (see page 2, lines 33-37), and C) 2-10 weight-% of at least one compound having at least one phosphoric acid group and containing at least one free-radically polymerizable double bond (see page 3, line 30; page 4, lines 15-33), wherein the weight-% of Component C is relative to quantity of the of the entire coating composition (see page 2, lines 37-39); and wherein said cured filler layer produces no edge marks when said topcoat layer is applied (see page 9, lines 28-30).

Claim 8, analyzed separately herein, adds the limitation to Claim 1 that the filler coating composition comprises as Component B isobornyl (meth)acrylate (see page 4, lines 9-11).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Whether Claims 1-3, 6, 10, and 13 are obvious under 35 U.S.C. § 103(a) in view of Maag *et al.* (DE-A-197 57 082, WO 99/26733, or U.S. Patent No. 6,531,188) in further view of Richard (U.S. Patent No. 5,091,211).

Whether Claim 8 is obvious under 35 U.S.C. § 103(a) in view of Maag *et al.* in further view of Richard in further view of Brehm *et al.* (U.S. Patent No. 5,700,576).

## **VII. ARGUMENT**

### **A. The Final Office Action**

#### **1. Claims 1-3, 6, 10 and 13**

Claims 1-3, 6, 10, and 13 were rejected obvious under 35 U.S.C. § 103(a) in view of Maag *et al.* in further view of Richard. The Examiner asserted that Claims 1-3, 6, 10, and 13 remained rejected as stated in the June 22, 2005, Non-Final Office Action (*hereinafter* "NF Office Action"). In the NF Office Action, the Examiner argued that the Applicants admitted in the Description of Related Art at page 1, lines 26-30, of the specification that Maag *et al.* disclose "a multilayer coating process, in which the filler coating composition used comprises either solely binders curable by free-radical and/or cationic polymerization, or binders curable by free-radical and/or cationic polymerization and further chemically crosslinkable binders. Curing

proceeds by means of high energy radiation.” NF Office Action at page 3, 5<sup>th</sup> paragraph (internal markings omitted). The Examiner further asserted that Maag *et al.* disclose all of the process steps of Applicants’ claimed invention. *Id.* at page 3, 6<sup>th</sup> paragraph (internal markings omitted). A cycloaliphatic (meth)acrylate was defined as “an ester of cycloaliphatic alcohol and methacrylic acid”, which the Examiner then concluded was “a reaction product of cycloaliphatic alcohol and methacrylic acid.” *Id.* at page 4, 1<sup>st</sup> paragraph.

The Examiner admitted that “Maag *et al.* fail to teach that the surfacer (filler) coating composition comprises at least one compound having at least one phosphoric acid group and at least one free-radically polymerizable double bond (Claim 1) such as methacryloyl-modified phosphoric acid derivative (Claim 10) in an amount of 2-10 wt. % (Claim 1).” *Id.* at page 4, 2<sup>nd</sup> paragraph (internal markings omitted).

To fill in the gap, the Examiner combined Maag *et al.* with Richard. The Examiner alleged that Richard discloses a compound having at least one phosphoric acid group and at least one free-radically polymerizable double bond. *Id.* at page 4, 3<sup>rd</sup> paragraph (internal markings omitted). The Examiner thus concluded that

[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a compound having phosphoric acid group and a double bond such as monoester or diester of phosphoric acid having acryloyl or methacryloyl groups in an amount of 0.5 to 10 wt % to a radiation curable surfacer coating composition of Maag *et al.* with the expectation of providing the surfacer coating composition with the desired strong adhesive bond of the coating to a metal substrate, as taught by Richard.

NF Office Action at page 5, 1<sup>st</sup> paragraph.

In the Final Office Action, in response to the Applicants’ arguments to the contrary, the Examiner essentially reiterated the arguments set forth in the NF Final Office Action. Final Office Action at page 3, 3<sup>rd</sup> paragraph. Citing MPEP §§ 2111.02 & 2112.01 and *In re Best*, 562 F.2d 1252 (C.C.P.A. 1977), the Examiner further argued that a composition produced by the alleged Maag *et al.*/Richard combination would inherently produced no edge marks because Maag *et al.*/Richard process is “identical or substantially identical” to Applicants’ claimed process. NF Office Action at page 5, 2<sup>nd</sup> paragraph (internal markings omitted).

In response to the Applicants' arguments and submission of a 132 declaration comparing Applicants' claimed process to alleged prior art coatings, the Examiner determined that the 132 declaration was insufficient because of two perceived errors. The first alleged error was that "Claim 1 recites broadly ester of methacrylic acid with any cycloaliphatic alcohol not necessarily isobornyl methacrylate of Claim 8." Final Office Action at page 3, 2<sup>nd</sup> paragraph (internal markings omitted). The second alleged error was that "a component B of Maag *et al.* in view of Richard is 'ester of methacrylic acid of any cycloaliphatic alcohol' not 2-hydroxy ethyl methacrylate or methyl methacrylate used in the comparative experiments of the Declaration." *Id.* (internal markings omitted).

## **2. Claim 8**

Claim 8 was rejected under 35 U.S.C. § 103(a) as being obvious over Maag *et al.* in further view of Richard in further view of Brehm *et al.* As above, the Examiner asserted that Claim 8 remained rejected as stated in the NF Office Action.

In the NF Office Action, the Examiner asserted that Brehm *et al.* taught monofunctional reactive thinners, such as isobornyl methacrylate, can be used in combination with acrylic prepolymers in a radiation curable coating composition for coating automobile parts to provide good flow properties of the coating composition and thereby good processibility. NF Office Action at page 6, 1<sup>st</sup> paragraph. In support thereof, the Examiner cited *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327 (1945), for the proposition that "the selection of a known material based on its suitability for its intended use support[s] a prima facie obviousness determination." See also MPEP § 2144.07. The Examiner thus concluded that it would have been obvious to use isobornyl methacrylate as a methacrylate of a cycloaliphatic alcohol in the coatings of Maag *et al.* in combination with Richard. NF Office Action at page 6, 3<sup>rd</sup> paragraph.

In response to the Applicants' argument that there was no motivation or suggestion to combine Brehm *et al.* with Maag *et al.* and Richard, the Examiner stated that Brehm *et al.* "is a secondary reference which is relied upon to show that monofunctional reactive thinners, such as isobornyl methacrylate may be used in combination with acrylic prepolymers in a radiation curable coating composition for

coating automobile parts to provide good flow properties of the coating composition and thereby good processibility.” Final Office Action at page 4, 5<sup>th</sup> paragraph (citations omitted). The Examiner then concluded that whether the substrate in Brehm *et al.* was plastic or metal was “irrelevant.” *Id.* at page 5, 1<sup>st</sup> paragraph.

## **B. The Advisory Action**

In the Advisory Action mailed on November 23, 2005, the Examiner maintained all of the rejections from the Final Office Action. The Examiner attempted to explain how Maag *et al.* disclose cycloaliphatic (meth)acrylates. Specifically, the Examiner asserted that, because Maag *et al.*

do not limit their teaching to particular monosaturated methacrylic acid esters, they include monosaturated methacrylic acid esters of any alcohols including cycloaliphatic alcohols . . . such as those cycloaliphatic alcohols mentioned at column 3, lines 5-9 as long as methacrylic acid esters of cycloaliphatic alcohols are liquid monounsaturated monomers especially considering the fact that Maag *et al.* use the same type of compounds as binders and as reactive diluents.

November 23, 2005, Advisory Action at page 3, 1<sup>st</sup> paragraph.

## **C. Applicants’ Traversal of the Final Office Action and Arguments in Support Thereof**

### **1. Claims 1-3, 6, 10 and 13 are Nonobvious Over Maag *et al.* in View of Richard.**

#### **a. Maag *et al.* Fails to Disclose or Suggest Applicants’ Component B Reactive Diluents.**

Maag *et al.* do not disclose or suggest a free-radically polymerizable reactive diluent comprising at least one (meth)acrylic acid ester having an olefinic double bond, said at least one (meth)acrylic acid ester being formed by reacting (meth)acrylic acid with at least one cycloaliphatic alcohol. As defined in Applicants’ specification, “[r]eactive diluents are reactive, polymerizable liquid monomers that act as solvents for the system and participate in the crosslinking reaction” (page 3, lines 33-34). Binders, Component A of Claim 1, can “comprise any conventional binders radiation-curable by free-radical polymerization or mixtures thereof which meet the

requirement of low functionality," which is defined as fewer than three double bonds per molecule (page 3, lines 2-7).

The binders disclosed in Maag *et al.* "may be constituted, for example, by prepolymers such as polymers or oligomers having in the molecule olefinic double bonds which are polymerisable [sic] by free radical initiation" (column 2, lines 62-65). Cycloaliphatic (meth)acrylates are one type of preferred binders (column 3, lines 8-9). The text of the disclosure in Maag *et al.* as related to reactive diluents is reproduced below.

The prepolymers may be present in combination with reactive diluents, that is to say reactive polymerisable [sic] liquid monomers. The reactive diluents are generally used in quantities of from 1 to 50 wt. %, preferably 5 to 30 wt. %, with reference to the total weight of prepolymer and reactive diluent. The reactive diluents may be monounsaturated, diunsaturated or polyunsaturated. Examples of monounsaturated reactive diluents are: (meth)acrylic acid and esters thereof, maleic acid and semiesters thereof, vinyl acetate, vinyl ethers, substituted vinyl ureas, styrene, vinyl toluene. Examples of diunsaturated reactive diluents are: di(meth)acrylates such as alkylene glycol di(meth)acrylate, polyethylene glycol di(meth)acrylate, 1,3-butanediol di(meth)acrylate, vinyl (meth)acrylate, allyl (meth)acrylate, divinyl benzene, dipropylene glycol di(meth)acrylate, hexanediol di(meth)acrylate. Examples of polyunsaturated reactive diluents are: glycerol tri(meth)acrylate, trimethylolpropane tri(meth)acrylate, pentaerythritol tri(meth)acrylate, pentaerythritol tetra(meth)acrylate. The reactive thinners may be used singly or in mixture. Diacrylates such as, for example, dipropylene glycol diacrylate, tripropylene glycol diacrylate and/or hexanediol diacrylate are preferably used as reactive diluents.

(column 3, lines 13-35). As can be seen from this paragraph, there is *no* disclosure or suggestion in Maag *et al.* to use a reactive diluent that is a (meth)acrylic acid ester being formed by reacting (meth)acrylic acid with at least one cycloaliphatic alcohol as is required by Applicants' Claim 1 invention. Further, the working example in Maag *et al.* uses hexanediol diacrylate as the reactive diluent, not specifically mentioned as such, but easily inferable from the text (see Example at column 8, line 44 – column 9, line 30). Hexanediol diacrylate, however, is simply not a (meth)acrylic acid ester being formed by reacting (meth)acrylic acid with at least one cycloaliphatic alcohol.



In absence of disclosure or suggestion from Maag *et al.* as to Applicants' claimed reactive diluents, the Examiner argues that Maag *et al.* is open as to what the reactive diluent can be.<sup>1</sup> Such an argument, however, is merely window-dressing for what is an impermissible obvious-to-try argument. As the Court of Appeals for the Federal Circuit ("CAFC") has continually instructed, obvious-to-try is not the standard for patentability analyses under section 103. See, e.g., *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 725 (Fed. Cir. 1990) (noting that the CAFC has "consistently held that 'obvious to try' is not to be equated with obviousness under 35 USC 103"). In *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988), the CAFC explained that obvious-to-try generally arises in two cases: (1) where it would have been obvious-to-try "to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which many possible choices is likely to be successful" or (2) where one was exploring "a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it." 853 F.2d at 903. The present application fits within the first case because the Examiner's arguments essentially are that it would be obvious-to-try any type of (meth)acrylic acid ester until Applicants' invention is discovered. Given the vast amount of (meth)acrylic acid esters available to one of ordinary skill in the art, the selection of a (meth)acrylic acid ester being formed by reacting (meth)acrylic acid with at least one cycloaliphatic alcohol would *not* be obvious to one of ordinary skill in the art.

Indeed, Maag *et al.*, while disclosing coatings with reactive diluents, merely recites a laundry list of monounsaturated, diunsaturated, and polyunsaturated reactive diluents (column 3, lines 15-31). Diunsaturated reactive diluents are preferred (column 3, lines 32-35), unlike in Applicants' claimed process where unsaturated monocarboxylic acid esters, specifically (meth)acrylic acid ester with

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<sup>1</sup> In a previous office action, the Examiner admitted that Maag *et al.* in view of Richard "fails to teach that the esters of methacrylic acid are esters of cycloaliphatic alcohols (Claim 7) such as isobornyl methacrylate (Claim 8)." November 17, 2003, Non-Final Office Action at page 6, 2<sup>nd</sup> paragraph (emphasis in original). Claim 7 has since been amended into claim 1 as Component B. It was only *after* said amendment that the Examiner asserted that Maag *et al.* disclosed such esters of cycloaliphatic alcohols.

cycloaliphatic alcohols, are required. Considering the teaching of Maag *et al.* as a whole, Applicants respectfully submit that one of ordinary skill in the art would not select (meth)acrylic acid esters with cycloaliphatic alcohols as a reactive diluent when instructed that dipropylene glycol diacrylate, tripropylene glycol diacrylate, and hexandiol diacrylate are preferred reactive diluents.

Maag *et al.* do disclose that several (meth)acrylates such as polyurethane (meth)acrylates, epoxy (meth)acrylates, (meth)acrylic-functional (meth)acrylic copolymers, etc. can be used as *prepolymers* (polymers or oligomers) (see column 2, line 65 – column 3, line 4). These prepolymers contain, as the term “prepolymers” implies, (meth)acrylic ester groups as unsaturated groups. Further, these prepolymers have a molar mass of 200 to 10,000, and they contain 2 to 20 double bonds per molecule, whereas the reactive diluents of Applicants’ claimed invention are definitely monounsaturated. The main criterion to distinguish between, for example, oligomeric prepolymers (composed of 2 to about 5 monomer units) and monomeric reactive diluents is the capability of the latter to function as solvents (liquid monomers with an appropriate viscosity) for the prepolymers. Thus, the prepolymers of Maag *et al.* are not reactive diluents (liquid monomers) even if the lower limit of molar mass is quite low and could overlap with the molar mass of specific reactive diluents.

The term “aliphatic and/or cycloaliphatic (meth)acrylates are preferably used” at column 3, lines 8-9, of Maag *et al.* clearly means that the (meth)acrylic ester groups in the prepolymers mentioned above are preferably aliphatic and/or cycloaliphatic (meth)acrylic ester groups. It does *not* mean that monomeric (meth)acrylic esters are used as prepolymers; such a meaning would be a contradiction in terms. Therefore, there is no relationship between the term “aliphatic and/or cycloaliphatic (meth)acrylates” at column 3, lines 8-9, and the reactive diluents mentioned at column 3, lines 18-20.<sup>2</sup> Applicants thus respectfully submit that Claim 1, and in turn the claims dependent on Claim 1, are nonobvious over Maag *et al.* in view of Richard.

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<sup>2</sup> Maag *et al.*’s examples of monounsaturated reactive diluents are (meth)acrylic acid and esters thereof.

**b. Maag *et al.* is not combinable with Richard.**

Applicants further submit that Maag *et al.* cannot be combined with Richard to produce Applicants' claimed process. Richard is directed to the manufacture of vinyl floor and wall coverings and teaches the use of methacryloyl-modified phosphoric acid derivatives in UV curable topcoats. These topcoats are based on acrylated polyurethanes with improved adhesion of topcoats on vinyl resin layers, preferably in the form of vinyl floors. One of ordinary skill in the art would not combine Maag *et al.* with a document directed towards vinyl floor and wall coverings to produce a process directed at coating metal substrates.

The combination of two references in unrelated fields is indicative of the use of hindsight to reconstruct Applicants' claimed invention. See, e.g., *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992) ("The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness."). Indeed, a person of ordinary skill in the art would not logically look to coatings used in coating vinyl floors to develop an improved automotive repair coating process for coating metallic automotive bodies and parts thereof in accordance with Applicants' claimed invention. The Examiner has correctly stated that Maag *et al.* fail to teach a filler coating composition comprising at least one compound having at least one phosphoric acid group and at least one free-radically polymerizable double bond. Applicants respectfully submit that the Examiner has, however, incorrectly characterized Richard as disclosing that the addition of a compound having a phosphoric acid group and a double bond such as methacryloyl-modified phosphoric acid derivative to a radiation curable coating composition comprising acrylourethane and reactive free-radical polymerizable monomers "provides strong adhesive bond [sic] of the coating to a metal substrate". July 23, 2004, Non-Final Office Action at page 4, 3<sup>rd</sup> paragraph. Richard is, in fact, directed to an improvement in coating of synthetic plastic substrates (see column 1, lines 55-60). The cited text states that, while the "coating compositions of the invention are known to provide strong adhesive bonds to metal substrates, the *same coatings have failed to provide bonds of satisfactory strength on synthetic plastic substrates.*" (emphasis added). Applicants respectfully submit that the Examiner has

misinterpreted this statement as applying to the claimed invention of Richard, when in fact the statement applies to *previously known* compositions—that is, compositions not containing at least one phosphoric acid group and containing at least one free-radically polymerizable double bond, as recited in the present claims—let alone compositions containing the other features of the present claims.<sup>3</sup>

Thus, there is no disclosure, teaching, or suggestion in Richard of the use of a coating composition containing a compound having at least one phosphoric acid group on a *metal* substrate. In fact, Richard effectively teaches, at column 1, lines 55-60, that the disclosed phosphoric acid ester-containing compositions are intended only for use on synthetic plastic substrates, whereas *known* coating compositions are apparently deemed by Richard to be adequate for metal substrates. Moreover, Richard fails to address in any way what constitutes “strong adhesive bonds” to metal surfaces, where an improvement might be desired, for example, under conditions of weathering, thermal exposure, or humidity, or what might constitute an improvement in bonding of coatings to metal substrates. Thus, Richard is in fact inapplicable to the present claims.

There is certainly no motivation for one skilled in the art to combine Richard with Maag *et al.*, which does disclose coating metal surfaces. In particular, the presently claimed compositions provide primer surfacer coatings that can be overcoated without showing edge marks, and which fulfill standard requirements of automotive repair coating. There would be no reason for a skilled person to consider the disclosures of Richard in connection with automotive coatings, let alone to combine the disclosures of Richard with those of Maag *et al.*

Furthermore, it is questionable whether vinyl floor and wall coverings are an analogous art to repair coatings of metal substrates as is required before a reference can be included in the prior art available for an obviousness rejection. See MPEP § 2141.01(a). Indeed, Richard is neither in the field of automotive repair coatings, nor reasonably pertinent to the particular problem with which Applicants were concerned.

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<sup>3</sup> For support of Applicants' interpretation of the cited lines from Richard, see the Abstract, which recites the invention as being an “improvement” to a method of coating a *vinyl resin layer* with a coating composition comprising a radiation curable acrylourethane, a photoinitiator, and at least one unsaturated addition-polymerizable monomer, the “improvement comprising including in said coating composition a monester or diester of phosphoric acid . . . .”

To the contrary, Richard indicates at column 1, lines 6-10, that his “invention relates to a method for improving the adhesion between vinyl resin layers such as are used as the wear layer on vinyl floor and wall tile and acrylate urethane topcoats.” It becomes readily evident upon a closer review that Richard relates to vinyl floor covering manufacturing, and not to automotive repair coating processes for automotive bodies or parts thereof in accordance with Applicants’ claimed coating process. In contrast, Applicants expressly state in the claims and at page 1, lines 5-8, that their “invention relates to a process for multilayer coating, in particular repair coating of substrates,” wherein the process is “used in the field of automotive and industrial coatings.”

Richard is also not reasonably pertinent to the problem with which Applicants were concerned. Richard fails to indicate anywhere therein that his method either would, or could, produce a coating composition that, when used in an automotive repair coating process in accordance with Applicants’ claimed invention, would exhibit all of the following characteristics: a) excellent adhesion to a metallic substrate, b) no edge marks when overcoated with further coating layers, and (c) a balanced relationship between good stability and good flow. In fact, column 1, lines 27-39, indicates that Richard is concerned with improving the adhesive strength of the bond between the acrylated urethane top-coat resin layer and the vinyl floor layer to which the top-coat is applied. Nowhere does Richard ever mention that his coating composition or any ingredient utilized therein can be successfully used in an automotive repair coating process in accordance with Applicants’ claimed invention. More particularly, Richard is dealing exclusively with compositions related to vinyl floor coverings—and not metallic substrates. As Richard fails to indicate anywhere therein that his coating composition either would or could produce an acceptable automotive repair coating possessing the coating characteristics afforded by Applicants’ claimed repair coating process, Richard would not have logically commended itself to the attention of a person of ordinary skill in the art seeking to produce an automotive repair coating possessing the characteristics of a coating produced in accordance with Applicants’ claimed repair coating process. Accordingly, as Richard is neither in the field of Applicants’ endeavor, nor reasonably pertinent to the particular problem with which Applicants were concerned, Applicants

respectfully assert that Richard is non-analogous prior art that cannot form the basis for a section 103 rejection.

**c. Applicants' Secondary Considerations Further Support a Finding of Nonobviousness.**

In connection with Applicants' claimed process, Applicants have determined that the lack of edge marks at the point of contact between the OEM ("original equipment manufacturer") coating and the repair coating is an unexpected result. This unexpected result was found when Components A and B were within the stated ranges in Claim 1 such that there were no visible internal or external edge marks.<sup>4</sup> Outside of the defined ranges for Components A and B, however, it would be difficult to avoid the presence of edge marks on overcoating with topcoats while maintaining a balance between satisfactory flow and good stability. For example, in the instance where Component B would be decreased below the lower limit of 40%, and therefore, Component A is increased to an amount above 60%, adhesion problems would result between the substrate and the repair coating. It would also lead to reduced sandability, thereby resulting in edge marks when overcoating with topcoats. Moreover, another consequence would be a decrease in its flow capabilities, wherein the balanced properties of the present invention would be compromised. Neither Maag *et al.* nor Richard disclose the unexpected advantage cited herein or the ranges utilized with the present invention as set forth in the amended claims.

Additionally, attached hereto in the Evidence Appendix is a declaration under 37 C.F.R. § 1.132 signed by Helmut Löffler, a DuPont employee intimately familiar with the present application and its prosecution history, which establishes further unexpected results of Applicants' claimed invention. Mr. Löffler describes a series of experiments that demonstrate that the coating compositions of Maag *et al.* in

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<sup>4</sup> As evidence of such a finding, please refer to Examples 1, 2, and 3 at page 10, line 1 – page 11, line 12, of Applicants' specification as well as the "Presentation of coating results," at page 11, lines 14-35 of Applicants' specification wherein a damaged OEM coating (coated onto sheet steel) was repaired such that the coating was sanded back to the steel substrate and, when repaired, exhibited no internal or external edge marks.

combination with Richard fail to produce a repair coating having a cured filler layer with no edge marks when the top coat is applied.

Mr. Löffler explains that two coating compositions were prepared as described in Example 2 of Applicants' specification except that, instead of using isobornyl acrylate, comparative coating composition 1 used 2-hydroxy ethyl methacrylate and comparative coating composition 2 used methyl methacrylate. Filler layers of the comparative coating compositions 1 and 2 were applied separately by spraying onto bright sheet steel to yield a dry layer thickness of 150  $\mu\text{m}$ . Immediately after application, the filler layers were exposed to irradiation by a UV flash lamp (3500 W). Irradiation was performed by 30 flashes; a flash being triggered every four seconds. With regard to the comparative examples in Mr. Löffler's 132 declaration, Applicants demonstrated that using (meth)acrylic ester of cycloaliphatic alcohols (specifically isobornyl acrylate) provides advantages over using esters of aliphatic alcohols (hydroxy and non-hydroxy functional esters). In presenting comparative examples, Applicants selected two compounds which most represent the Maag *et al.* disclosure in combination with Richard *and* Brehm *et al.* These compounds, 2-hydroxy ethyl methacrylate and methyl methacrylate, are in Brehm *et al.*'s list of reactive thinners,<sup>5</sup> and comport with Maag *et al.*'s definition of a reactive diluent (see column 3, lines 14-35).

Comparison of the two comparative coating compositions to the claimed invention could not be performed because *neither* of the comparative coatings cured. Mr. Löffler concluded that "because a surfacer coating composition of Maag *et al.* in view of Richard produces a coating that does not cure and, consequently, cannot be used to produce a coating without edge marks as claimed in the present invention." Applicants' claimed invention, however, not only cures, but also produces a filler coating that does not show edge marks when the top coat is applied. According to the MPEP § 716.02(a)(III), the "[p]resence of a property not possessed by the prior art is evidence of nonobviousness." (citing *In re Papesch*, 315 F.2d 381 (C.C.P.A.

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<sup>5</sup> Brehm *et al.*'s exemplary reactive thinners are as follows: butyl acrylate, 2-hydroxyethyl (meth)acrylate, hydroxypropyl (meth)acrylate, 2-ethoxy(methyl)ethyl methacrylate, 2,2,3,3-tetrafluoropropyl methacrylate, methyl methacrylate, tert-butyl methacrylate, and isobornyl methacrylate (column 5, lines 54-59).

1963)). Thus, Applicants' claimed invention should be nonobvious over Maag *et al.* in view of Richard.

Mr. Löffler's declaration further evidences that there is no reasonable expectation of success in the Maag *et al.*/Richard combination. "Obviousness does not require absolute predictability, however, at least some degree of predictability is required. Evidence showing there was no reasonable expectation of success may support a conclusion of nonobviousness." MPEP § 2143.02 (citing *In re Rinehart*, 531 F.2d 1048 (C.C.P.A. 1976)). Here, the evidence submitted in the 132 declaration demonstrates that coatings disclosed by the Maag *et al.*/Richard combination not only fail to produce no edge marks, they also fail to cure *at all* under conditions set forth in the claimed invention. Without a reasonable expectation of success, the Examiner has failed to establish a *prima facie* case of obviousness.

**2. Claim 8 is Nonobvious Over Maag *et al.* in View of Richard in Further View of Brehm *et al.***

**a. Brehm *et al.* Cannot be Combined with Maag *et al.* and/or Richard.**

In addition to the arguments set forth in Section VII(C)(1) *infra* that will not be repeated, Applicants respectfully submit that Brehm *et al.* cannot be combined with Maag *et al.* and/or Richard. Brehm *et al.* disclose a coating agent for scratch-free coatings on *thermoplastic* substrates (column 6, lines 33-35) comprising monofunctional reactive thinners in coatings suitable for roll application (column 5, lines 46-47). There is no disclosure or suggestion in Brehm *et al.* either alone or in combination with Maag *et al.* and Richard that the monofunctional reactive thinners disclosed in Brehm *et al.* can be utilized in coatings for metal substrates. Furthermore, the coatings in Brehm *et al.* can only be applied in a thickness of 1-50 µm (column 6, line 66 – column 7, line 1). A coating thickness above 50 µm can lead to cracking when the coating is subjected to flexural stress (column 7, lines 3-4). Coatings produced by Applicants' claimed process have no such limitation (see, e.g., Example 3 of Applicants' Specification demonstrating a coating thickness of 150 µm). Indeed, a person of ordinary skill in the art would not expect a coating that either cracks when applied in a thickness greater than 50 microns in accordance



with Brehm *et al.* to be combinable with a coating that is to be applied at a 200-400 micron thickness in accordance with Maag *et al.* As Maag *et al.*, Richard, and Brehm *et al.* were improperly combined, the Examiner has failed to establish a *prima facie* case of obviousness.

Even if the references did not teach away from each other, the references would still not be combinable. “The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” MPEP § 2143.01(III) (citing *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990)) (emphasis in original). As Applicants have already discussed hereinabove, Maag *et al.*, Richard, and Brehm *et al.* do not suggest the desirability of such a combination, but rather indicate that such a combination would, based on desired coating thicknesses, be very undesirable. As a result, Applicants respectfully assert that the Examiner has failed to establish a *prima facie* case of obviousness as applied to Claim 8.

Moreover, Applicants respectfully assert that the Examiner is using hindsight reconstruction to arrive at Applicants’ claimed invention. In fact, Applicants believe that the requisite motivation to combine Maag *et al.*, Richard, and Brehm *et al.* is not coming from the references themselves, but rather from Applicants’ specification. Indeed, it appears as if the Examiner, in direct contravention of the statutory mandate of section 103 requiring obviousness to be judged at the point in time when the invention was made, is using Applicants’ disclosure as a blueprint to reconstruct their claimed invention from isolated pieces of Maag *et al.*, Richard, and Brehm *et al.* See *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 840 F.2d 902, 907 (Fed. Cir. 1988) (“In determining obviousness, ‘the inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the invention as a whole for which patentability is claimed.’”) (quoting *Hartness Int’l, Inc. v. Simplimatic Eng’g Co.*, 819 F.2d 1100, 1108 (Fed. Cir. 1987)). In fact, the conflicting coating thicknesses of Maag *et al.*, Richard, and Brehm *et al.* irrefutably establish that the Examiner simply reconstructed Applicants’ claimed invention by selecting isolated pieces of each reference. If the Examiner had reviewed Maag *et al.*, Richard, and Brehm *et al.* with an eye to what a person of ordinary skill in the art would have thought upon reviewing the *entirety*—and *not* just pieces—of the

disclosure of each reference *without the benefit of hindsight reconstruction*, the Examiner would have understood the limitations that Brehm *et al.* place on the thicknesses of their coatings lead a person of ordinary skill in the art away from combining this reference with Maag *et al.* and Richard. See MPEP § 2141.02(VI) (“A prior art reference must be considered in its entirety, i.e., as a *whole*, including portions that would lead away from the claimed invention.”) (emphasis in original).

Brehm *et al.* also is non-analogous prior art and, therefore, cannot form the basis for a section 103 rejection. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” MPEP § 2141.01(a)(I) (quoting *Oetiker*, 977 F.2d at 1446). A reference is reasonably pertinent if, “even though it may be in a different field from that of the inventor’s endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.” *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). It becomes evident upon reviewing the disclosure Brehm *et al.* as a whole that it is neither in the field of automotive repair coatings nor reasonably pertinent to the particular problem with which Applicants were concerned.

Brehm *et al.* indicate at column 1, lines 9-14, that their “invention relates to UV-curable scratch-resistant coatings for plastics, particularly scratch-resistant varnishes having thickeners which become bound in the composition of the varnish by polymerization . . . when the varnish is used.” In particular, it becomes evident upon closer review of Brehm *et al.* that it is concerned with providing transparent plastics—and *not* metallic automotive bodies or parts thereof—with a more scratch resistant coating.

In contrast, Applicants expressly indicate at page 1, lines 5-8, that their “invention relates to a process for multilayer coating, in particular repair coating of substrates . . . ,” wherein the process is “used in the field of automotive and industrial coatings.” More particularly, it becomes evident upon reviewing Applicants’ disclosure that their claimed coating process is concerned with coating metallic substrates, such as automotive bodies and parts thereof. Claim 8, through its dependency on Claim 1, echoes these requirements.

Furthermore, Brehm *et al.* is not reasonably pertinent to the problem with which Applicants were concerned. Indeed, Brehm *et al.* fail to indicate anywhere therein that their coating compositions would, or could, produce a coating composition that, when used in an automotive repair coating process in accordance with Applicants' claimed invention, would exhibit the following characteristics: a) excellent adhesion to a metallic substrate, b) no edge marks when overcoated with further coating layers, and (c) a balanced relationship between good stability and good flow. Although the Examiner conclusorily states that a person of ordinary skill in the art would expect the coatings of Brehm *et al.* to have good flow properties no matter to what substrate they are applied, Applicants respectfully requested, in their Response to the March 22, 2004, Final Office Action, that the Examiner identify where Brehm *et al.* indicates that such properties can be achieved by adding the isobornyl methacrylate of Brehm *et al.* to a composition that is to be applied via a repair coating process to a metallic—not plastic—substrate. The Examiner failed to do so. In fact, Brehm *et al.* indicate at column 2, lines 26-67, that they are concerned with producing thickeners that have better weatherability than those currently available, wherein the thickeners enable a more scratch resistant and yet clear, that is, non-cloudy coating, to be produced on a *plastic* substrate.

The Examiner's reliance on *Sinclair* as support for the obviousness of Applicants' claimed invention is misplaced. In *Sinclair*, a prior art reference disclosed the problem solved by the patentee. 325 U.S. at 333. All that was missing from the prior art reference was the compound that the patentee used to solve the problem. *Id.* This compound fit exactly within the characteristics defined by the prior art reference's description of what compound would solve the stated problem. *Id.* *Sinclair* thus warns that "[r]eading a list and selecting a known compound to meet *known* requirements is no more ingenious than selecting the last piece to put into the last opening in a jig-saw puzzle." *Id.* at 335 (emphasis added). Here, however, the primary reference used by the Examiner, Maag *et al.*, does not teach the problem solved by the Applicants, namely, a process for coating metal substrates with filler coating compositions curable by irradiation with high energy radiation. Without having a reference that sets forth the requirements of the problem solved by

Applicants, the Examiner's use of *Sinclair* to establish a *prima facie* case of obviousness must fail.

Further, contrary to the Examiner's assertions, the substrate material is *not* irrelevant. Adhesion as well as other properties of coating compositions on plastics and on metal are *not* comparable. Thus, Applicants reiterate that there is no motivation or suggestion to combine Brehm *et al.* with Maag *et al.* and Richard.

**b. Applicants' Demonstrated Unexpected Results Are Well Within the Scope of Claim 8.**

Claim 8 is specifically directed to isobornyl (meth)acrylate as Component B. Thus, the claim covers a genus for Component B having two essentially interchangeable constituents: isobornyl acrylate and isobornyl methacrylate. In the experiments described in the 132 Declaration, Applicants used isobornyl acrylate to demonstrate the effectiveness of their claimed coating process. By demonstrating the superiority of an essentially interchangeable constituent of a genus over the prior art, Applicants respectfully submit that there can be no question that the 132 Declaration sufficiently covers the scope of Claim 8. As such, Applicants respectfully submit that Claim 8 is allowable over Maag *et al.* in view of Richard in further view of Brehm *et al.*

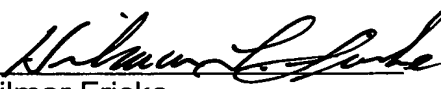
**VIII. CONCLUSION**

For the reasons set forth above, the Board is respectfully requested to reverse the final rejection of pending Claims 1-3, 6, 8, 10, and 13 and indicate allowability of all claims.


Please charge any fee due which is not accounted for to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Serial No. 09/873,714  
Docket No. FA1002 US NA

Respectfully submitted,

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Dated: May 15, 2006

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Dated: : May 15, 2006

**CLAIMS APPENDIX**

1. A process for repair coating of vehicle substrates which comprises:

- a) applying a filler layer of a filler coating composition to a metal substrate,
- b) curing the resultant filler layer by irradiation with high energy radiation and
- c) applying a top coat layer to the cured filler layer and curing the top coat layer,

wherein the liquid filler coating composition comprises

- A) 15-60 weight-% of at least one free-radically polymerizable binder comprising at least one free-radically polymerizable olefinic double bond, said binder having fewer than three of said olefinic double bonds per molecule,
- B) 40-85 weight-% of a free-radically polymerizable reactive diluent comprising at least one (meth)acrylic acid ester having an olefinic double bond, said at least one (meth)acrylic acid ester being formed by reacting (meth)acrylic acid with at least one cycloaliphatic alcohol, wherein the weight-% of components A) and B) adds up to 100 weight-%, and
- C) 2-10 weight-% of at least one compound having at least one phosphoric acid group and containing at least one free-radically polymerizable double bond, wherein the weight-% of component C) is relative to quantity of the entire coating composition;

wherein said cured filler layer produces no edge marks when said topcoat layer is applied.

2. The process according to claim 1, wherein the top coat layer comprises a colored and/or special effect base coat coating composition and a transparent clear coat coating composition applied over the base coat coating composition.

3. The process according to claim 1, wherein the top coat layer comprises a pigmented one-layer top coat coating composition.

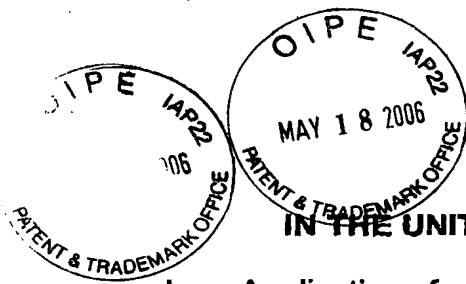
6. The process according to claim 1, wherein the filler coating composition comprises as component A) at least one binder capable of free-radical polymerization having 1.5 to 2.5 olefinic double bonds per molecule.
8. The process according to claim 1, wherein the filler coating composition comprises as component B) isobornyl (meth)acrylate.
10. The process according to claim 1, wherein the filler coating composition comprises as component C) at least one (meth)acryloyl-modified phosphoric acid derivative.
13. The process according to claim 1, wherein the metal substrate comprises at least one of an automotive body and an automotive part.

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Docket No. FA1002 US NA

**EVIDENCE APPENDIX**

Attached herewith is a copy of a signed declaration under 37 C.F.R. § 1.132 that was submitted along with Applicants' Response to the June 22, 2005, Non-Final Office Action.





PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

**AWOKOLA ET AL.**

**CASE NO: FA 1002 US NA**

**SERIAL NO: 09/873,714**

**GROUP ART UNIT: 1762**

**FILED: JUNE 4, 2001**

**EXAMINER: E. TSOY**

**FOR: PROCESS FOR MULTILAYER  
COATING OF SUBSTRATES**

**DECLARATION UNDER 37 C.F.R. § 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Helmut Löffler, declare that:

I am a citizen of the Federal Republic of Germany and reside at  
Ringstraße 86, 53773 Hennef.

I am an employee of E.I. du Pont de Nemours and Company ("DuPont").

I received an M.S. in Chemist from the University Paderborn (Germany).

I have worked for DuPont from 1988 to the present in Dupont Performance  
Coatings (Development UV coatings).

I am a technical expert in paint coatings, and I am familiar with the above  
reference patent application, as well as the December 27, 2002, Non-Final Office  
Action, the May 14, 2003, Final Office Action, the July 31, 2003, Advisory Action,  
the November 17, 2003, Non-Final Office Action, the March 22, 2004, Final Office  
Action, the May 21, 2004, Advisory Action, the July 23, 2004, Non-Final Office  
Action, the January 13, 2005, Final Office Action, the May 9, 2005, Advisory  
Action, the June 22, 2005, Non-Final Office Action, and the references cited  
therein.

The following are my remarks:

1. The June 22, 2005, Office Action indicated that claims 1-3, 6, 10, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Maag *et al.* (DE-A-197 57 082) in view of Richard (U.S. Patent No. 5,091,211). Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Maag *et al.* in view of Richard in further view of Brehm *et al.* (U.S. Patent No. 5,596,043).
2. When referring to Brehm *et al.*, I assume that the Examiner meant U.S. Patent No. 5,700,576 and not U.S. Patent No. 5,596,043, which issued to Harris *et al.*
3. In the June 22, 2005, Office Action, the Examiner's position is that the "surfacers coating composition of Maag *et al.* in view of Richard would produce no edge marks."
4. The Examiner states that Maag *et al.* disclose cycloaliphatic (meth)acrylates as reactive diluents. This statement is incorrect. Maag *et al.* disclose cycloaliphatic (meth)acrylates as preferred free radical-curing binders (see column 2, line 62 – column 3, line 9).
5. In Maag *et al.*, a number of monounsaturated reactive diluents are mentioned in long lists. In Maag *et al.*, mono-, di-, and polyunsaturated reactive diluents can be used (column 3, lines 13-35). Maag *et al.*, however, fails to teach the specific selection of cycloaliphatic acrylic acid esters (claim 1) and, more specifically, the selection of isobornyl (meth)acrylate (claim 8).
6. Attached hereto are experiments demonstrating that substitution of UV-curable reactive diluents disclosed in the references cited by the Examiner for that used and claimed in the present application produces coatings that could not be cured.
7. The experiments were performed under my instructions as follows. Two coating compositions were prepared as described in Example 2 of the present invention except that instead of using isobornyl acrylate, comparative coating composition 1 used 2-hydroxy ethyl methacrylate and comparative coating composition 2 used methyl methacrylate. Filler layers of the comparative coating compositions 1 and 2 were applied separately by spraying onto bright sheet steel to yield a dry layer thickness of 150 µm. Immediately after application, the filler layers were exposed to irradiation by a UV flash lamp (3500 W). Irradiation was performed by 30 flashes; a flash being triggered every four seconds.

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Docket No. FA 1002 US NA

8. Neither comparative coating composition hardened. The comparative coatings were thus not sandable and could not be overcoated properly with top coats.

9. I conclude that the Examiner's position in the June 22, 2005, Office Action is incorrect because a surfacer coating composition of Maag *et al.* in view of Richard produces a coating that does not cure and, consequently, cannot be used to produce a coating without edge marks as claimed in the present invention.

10. I declare that all statements made herein are either based on my own knowledge and are true, or if based on information and belief are believed to be true. I also declare that all statements were made with knowledge that willful false statements, and the like, are punishable by either fine, or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and any such willful false statements may jeopardize the validity of either the patent application, or any patent issuing thereon.

By:   
Helmut Löffler, M.S

Dated: October 30, 2005

Serial No. 09/873,714  
Docket No. FA1002 US NA

**RELATED PROCEEDINGS APPENDIX**

None



Please type a plus sign (+) inside this box →



\$ARI 1762  
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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number 09/873,714

Filing Date June 4, 2001

First Named Inventor Morenike Awokola

Group Art Unit 1762

Examiner Name Elena Tsoy

Total Number of Pages in This Submission

31

Attorney Docket Number

FA1002 US NA

### ENCLOSURES (check all that apply)

☒ Fee Transmittal Form

☐ Fee Attached

☐ Amendment / Response

☐ After Final

☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☐ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Response to Missing Parts/  
Incomplete Application

☐ Response to Missing  
Parts under 37 CFR  
1.52 or 1.53

☐ Assignment Papers  
(for an Application)

☐ Drawing(s)

☐ Licensing-related Papers

☐ Petition

☐ Petition to Convert to a  
Provisional Application

☐ Power of Attorney, Revocation  
Change of Correspondence Address

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☐ CD, Number of CD(s) \_\_\_\_\_

☐ After Allowance Communication  
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☐ Appeal Communication to Board of  
Appeals and Interferences

☒ Appeal Communication to Group  
(Appeal Brief)

☐ Proprietary Information

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### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm  
or  
Individual name

Hilmar L. Fricke, Registration No. 22,384

Signature

Date

May 15, 2006

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Ellen M. Godfrey

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# FEE TRANSMITTAL for FY 2006

Patent fees are subject to annual revision.

☐ Applicant Claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

## Complete if Known

Application Number	09/873,714
Filing Date	June 4, 2001
First Named Inventor	Morenike Awokola
Examiner Name	Elena Tsoy
Group / Art Unit	1762
Attorney Docket No.	FA1002 US NA

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit  
Account  
Number

04-1928

Deposit  
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Name

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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	1000	201	500	Utility filing fee	
106	430	206	215	Design filing fee	
107	660	207	330	Plant filing fee	
108	1400	208	700	Reissue filing fee	
114	200	214	100	Provisional filing fee	

SUBTOTAL (1)

(\$)

### 2. EXTRA CLAIM FEES

Total Claims  -20 =  Extra Claims X  Fee from below  =  Fee Paid

Independent Claims  -3 =  X  200 =

Multiple Dependent ☐ X  360 =

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
103	50	203	25	Claims in excess of 20
102	200	202	100	Independent claims in excess of 3
104	360	204	180	Multiple dependent claim, if not paid
109	200	209	100	** Reissue independent claims over original patent
110	50	210	25	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$)

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	120	215	60	Extension for reply within first month	
116	450	216	225	Extension for reply within second month	
117	1020	217	510	Extension for reply within third month	
118	1,590	218	795	Extension for reply within fourth month	
128	2,160	228	1,080	Extension for reply within fifth month	
119	500	219	250	Notice of Appeal	
120	500	220	250	Filing a brief in support of an appeal	500.00
121	1000	221	500	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	500	240	250	Petition to revive - unavoidable	
141	1,500	241	750	Petition to revive - unintentional	
142	1,400	242	700	Utility issue fee (or reissue)	
143	800	243	400	Design issue fee	
144	100	244	550	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Processing fee under 37 CFR 1.17(q)	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	790	246	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	790	249	395	For each additional invention to be examined (37 CFR § 1.129(b))	
179	790	279	395	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$) 500.00

## SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Hilmar L. Fricke	Registration No. Attorney/Agent)	22,384	Telephone	(302) 984-6058
Signature				Date	May 15, 2006

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Application No: 09/873,714

Filing Date: June 4, 2001

First Named Inventor: Morenike Awokola

Title: Process for Multilayer Coating of Substrates

Attorney Docket: FA1002 US NA

- Transmittal
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